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Koki Okamura

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MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER

LEE, JOHN W

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/766,922	Applicant(s) OKAMURA, KOKI	
	Examiner JOHN Wahnkyo LEE	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
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| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 January 2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takiguchi (US 5,130,935) in view of Adobe Photoshop 7.0 ("Adobe Photoshop 7.0: Classroom in a Book", hereinafter, "Photoshop"), and further in view of Yamakawa (US 6,184,860).

Regarding claim 1, Takiguchi discloses a method for correcting a facial image displayed on a monitor ("a skin color correction image processing apparatus using

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image data from a facial image (Fig. 7) using a computer (Fig. 4; col. 2, lines 64-68; col. 3, lines 1-5”), said method comprising: extracting pixels (Figs. 1-1; col. 2, lines 30-32, “L*”, “u”, “v”, “Luv conversion unit”) representing a plurality of specific facial feature areas from said facial image (Fig. 7; col. 5, lines 22-41, “Takiguchi’ invention is about skin color correction, and skin color itself has pixels that can cover a plurality of areas”). However, Takiguchi does not disclose rest of the claim limitations. Instead of Takiguchi, Yamakawa discloses selecting a correction item to be performed out of plural correction items, each of said plural correction items corresponding to each of said plurality of specific areas (“Yamakawa discloses an image editing apparatus that suggests various method of correction of the selected partial picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17)”), and if a pixel pointed to said cursor is in one of said plurality of specific areas corresponding to said correction item to be performed, subjecting said pointed to pixel to a correction process in accordance with said corresponding correction item (“Yamakawa discloses an image editing apparatus that suggests various method of correction of the selected partial picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17)”). Photoshop discloses detecting a position of a cursor in said facial image displayed on said monitor (“Photoshop is a well known and widely used image processing software that can

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change any images such as facial image to change the color of skin, hair, teeth, and even eyes by running on a computer and displaying on a monitor with a cursor on the screen by detecting or pointing the area that the user wants to modify by using the tools such as the Marquee tool, Lasso tool, and the Magic wand tool (pages 104-125)”) and specific facial feature areas comprising a skin area, and eye area, a teeth area and a hair area (“It is well known and widely used that Photoshop can be used to correct the color of the skin, red-eye, teeth, and hair of the facial image”).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Photoshop and Yamakawa’s invention in Takiguchi’s invention to provide an image editing apparatus that enables the operator to efficiently process and edit various images as suggested by Yamakawa (col. 1, lines 11-15).

Regarding claim 2, takiguchi further discloses that wherein one of said plural correction items comprises skin color correction, wherein when said pointed to pixel is in a skin area and a color of said pointed to pixel is outside of a range of predetermined skin color, a color of said pointed to pixel is corrected (“Takiguchi discloses that the number of image data which exist within a predetermined region on a (u,v), chromaticity diagram and which are among input color image data is counted, and when the counted number is smaller than a predetermined value, the correcting operation is not executed (abstract). The difference between a predetermined coordinate point and a coordinate point at which the largest counted number of image data exist is obtained, and the image data within the predetermined region are corrected (abstract)”). Moreover, it is

well known and widely used that Photoshop can be used to correct the color of the skin of the facial image.

Regarding claim 3, Photoshop further discloses skin color correction being selectable from plural colors ("Photoshop has functions, that the user can select different colors for changing the color of interest area of the image, such as Replace Color dialog box, eyedropper tool (pages 89-92), Color palette group having a Swatch palette, brush, and etc (pages 229-245)").

Regarding claim 4, Takiguchi further discloses that wherein one of said plural correction items comprises red-eye color correction, wherein when said pointed to pixel is in an eye area and a color of said pointed to pixel is red, the color of said pointed to pixel is corrected ("Takiguchi discloses that the number of image data which exist within a predetermined region on a (u,v), chromaticity diagram and which are among input color image data is counted, and when the counted number is smaller than a predetermined value, the correcting operation is not executed (abstract). The difference between a predetermined coordinate point and a coordinate point at which the largest counted number of image data exist is obtained, and the image data within the predetermined region are corrected (abstract)"). Moreover, it is well known and widely used that Photoshop can be used to correct red-eye of the facial image.

Regarding claim 5, Photoshop further discloses wherein said pointed to pixel being corrected to a selected eye color ("Photoshop has functions, that the user can select different colors for changing the color of interest area of the image, such as

Replace Color dialog box, eyedropper tool (pages 89-92), Color palette group having a Swatch palette, brush, and etc (pages 229-245)").

Regarding claim 6, Takiguchi further discloses that wherein one of said plural correction items comprises teeth color correction, Wherein when said pointed to pixel is in a teeth area and said pointed to pixel has a color out of a range of predetermined white, a color of said pointed to pixel is corrected ("Takiguchi further teaches that the number of image data which exist within a predetermined region on a (u,v), chromaticity diagram and which are among input color image data is counted, and when the counted number is smaller than a predetermined value, the correcting operation is not executed (abstract). The difference between a predetermined coordinate point and a coordinate point at which the largest counted number of image data exist is obtained, and the image data within the predetermined region are corrected (abstract)"). Moreover, it is well known and widely used that Photoshop can be used to correct the color of teeth of the facial image.

Regarding claim 7, Takiguchi further discloses that wherein one of said plural correction items comprises hair color correction, wherein when said pointed to pixel is in a hair area and a color of said pointed to pixel is white, the color of said pointed to pixel is corrected ("Takiguchi discloses that the number of image data which exist within a predetermined region on a (u,v), chromaticity diagram and which are among input color image data is counted, and when the counted number is smaller than a predetermined value, the correcting operation is not executed (abstract). The difference between a predetermined coordinate point and a coordinate point at which the largest counted

number of image data exist is obtained, and the image data within the predetermined region are corrected (abstract).”). Moreover, it is well known and widely used that Photoshop can be used to correct the color of hair of the facial image.

Regarding claim 8, Photoshop further discloses that said pointed to pixel is corrected to a same color as another pixel in said hair area (“Photoshop has functions-heal brush and patch tools that can be used to retouch and change the colors with the same colors of the objects inside the image (pages 201-211)”).

Regarding claim 9, Photoshop discloses that wherein one of said correction items comprises hair color correction, and said pointed to pixel is corrected to a selected hair color (“Photoshop further has functions, that the user can select different colors for changing the color of interest area of the image, such as Replace Color dialog box, eyedropper tool (pages 89-92), Color palette group having a Swatch palette, brush, and etc (pages 229-245).”).

Regarding claim 10, claim 10 is analogous and corresponds to claim 1. For further explanation, refer claim 1 rejection.

Regarding claim 12, Takiguchi discloses a method for correcting a facial image displayed on a monitor (“a skin color correction image processing apparatus using image data from a facial image (Fig. 7) using a computer (Fig. 4; col. 2, lines 64-68; col. 3, lines 1-5)”), said method comprising: extracting pixels from a plurality of specific facial feature areas (Figs. 1-1; col. 2, lines 30-32, “L*”, “u”, “v”, “Luv conversion unit”) from said facial image based on facial features identified in said facial image (Fig. 7; col. 5, lines 22-41, “Takiguchi’ invention is about skin color correction, and skin color itself has

pixels that can cover a plurality of areas"). However, Takiguchi does not disclose rest of the claim limitations. Instead of Takiguchi, Photoshop discloses detecting a position of a cursor in said facial image displayed on said monitor ("Photoshop is a well known and widely used image processing software that can change any images such as facial image to change the color of skin, hair, teeth, and even eyes by running on a computer and displaying on a monitor with a cursor on the screen by detecting or pointing the area that the user wants to modify by using the tools such as the Marquee tool, Lasso tool, and the Magic wand tool (pages 104-125)"). Yamakawa discloses providing a plurality of image correction items, each of said plurality of image correction items corresponding to each of said plurality of specific facial feature areas ("Yamakawa discloses an image editing apparatus that suggests various method of correction of the selected partial picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17)"), selecting one of said plurality of image correction items of said plurality of image correction items ("Yamakawa discloses an image editing apparatus that suggests various method of correction of the selected partial picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17)"), determining a corresponding one of said plurality of specific facial feature areas based on said selecting one of said plurality of image correction items ("Yamakawa discloses an image editing apparatus

that suggests various method of correction of the selected partial picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17)”), and correcting a pixel in said facial image in accordance with said selected one of said plurality of image correction items, said pixel corresponding to said position of said cursor when said position of said cursor is in said corresponding one of said plurality of specific facial feature areas (“Yamakawa discloses an image editing apparatus that suggests various method of correction of the selected partial picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17)”).

Regarding claim 13, Yamakawa further discloses identifying said facial features in said facial image (“Yamakawa discloses an image editing apparatus that suggests various method of correction of the selected partial picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17). Moreover, to have these functions, it is readily apparent and inherent that Yamakawa's invention will identify suggested items for correction.”) and dividing said facial image into said plurality of specific facial feature areas based on said identified facial features (“Yamakawa discloses an image editing apparatus that suggests various method of correction of the selected partial

picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17)). Moreover, to have these functions, it is readily apparent and inherent that Yamakawa's invention will have a division process of the selected suggested items.”).

Regarding claim 14, Takiguchi further discloses determining said facial features on a basis of geometric information comprising at least one of facial feature size, a position of each specific facial feature area with respect to said facial image, and a distance between said specific facial feature areas (abstract; Figs. 2, 3, 8-11, col. 3, lines 18-68; col. 4, lines 1-22, “predetermined region”, “u-v chromaticity”, “reference skin color line”, “su”, and “sv”).

Regarding claims 15 and 16, Photoshop is a well known and widely used image processing software that can change any images such as facial image to change the color of skin, hair, teeth, and even eyes by running on a computer and displaying on a monitor with a cursor on the screen by detecting or pointing the area that the user wants to modify by using the tools such as the Marquee tool, Lasso tool, and the Magic wand tool (pages 104-125). Yamakawa further discloses an image editing apparatus that suggests various method of correction of the selected partial picture data in the form of a menu together with the expected result of correction, so that the operator can effect correction by selecting one of the suggested items of correction, whereby the correction of a picture can be conducted easily (col. 23, lines 9-17).

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4. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takiguchi (US 5,130,935) in view of Adobe Photoshop 7.0 ("Adobe Photoshop 7.0: Classroom in a Book", hereinafter, "Photoshop"), and further in view of Yamakawa (US 6,184,860) and Stuppi et al. (US 7,002,546).

Regarding claims 17-20, Takiguchi, Photoshop, Yamakawa disclose all the previous claim limitations including cursor being in a skin, eye, teeth, or a hair area and said selected one of said plurality of image correction items comprises a skin, eye, teeth, and a hair by the fact that Photoshop is a well known and widely used image processing software that can change any images such as facial image to change the color of skin, hair, teeth, and even eyes by running on a computer and displaying on a monitor with a cursor on the screen by detecting or pointing the area that the user wants to modify by using the tools such as the Marquee tool, Lasso tool, and the Magic wand tool (pages 104-125). However, comparing luminance Y and chromaticities C_b , C_r of said pixel with luminance Y' and chromaticities C_b' , C_r' of a predetermined target skin color, eye color, teeth color, or a hair color are not disclosed by Takiguchi, Photoshop, or Yamakawa. Instead of Takiguchi, Photoshop, or Yamakawa, Stuppi discloses a processor configured to compare the calculated chromaticity and luminance values with desired chromaticity and luminance values, respectively and a controller, operationally connected to the processor, that is configured to adjust one or more of the first radiant power output and the second radiant power output in response to a difference between the calculated chromaticity and luminance values and the desired chromaticity and luminance values (claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Photoshop, Yamakawa's invention, and Stuppi's invention in Takiguchi's invention to provide an image editing apparatus that enables the operator to efficiently process and edit various images as suggested by Yamakawa (col. 1, lines 11-15).

Conclusion

5. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN Wahnkyo LEE whose telephone number is (571)272-9554. The examiner can normally be reached on Monday - Friday (Alt.) 7:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

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Customer Service Representative or access to the automated information system, call
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jingge Wu/

Supervisory Patent Examiner, Art Unit 2624

/John Wahnkyo Lee/

Examiner, Art Unit 2624